Scott Masten

Subject: Comments from Environment Canada re: nominated Perfluorinated Compounds to NTP toxicological study.
Date: Tuesday, October 19, 2004 6:49 PM
From: Miettunen,Anita [NCR] <Anita.Miettunen@ec.gc.ca>
To: <masten@niehs.nih.gov>
Cc: "Chenier,Robert [NCR]" <Robert.Chenier@ec.gc.ca>, "Kurias,Jessy [NCR]" <Jessy.Kurias@ec.gc.ca>

Dear Dr. Masten,

The Existing Substances Branch (ESB) at Environment Canada has noted that Perfluorinated Compounds (multiple CAS RNs) have been nominated to the National Toxicology Program (NTP) for toxicological study, and that the chemicals nominated for a class study include C4-C12 sulfonates; C6-C12 carboxylic acids; and the 8:2 and 10:2 telomer alcohols.

Along with other activities pertaining to perfluorinated substances, ESB has recently been collecting data on long chain perfluorocarboxylic acids (PFCAs). These substances have been detected in the Canadian Arctic, including at the highest trophic levels in the food chain (e.g. in polar bear), and preliminary data suggests there may be an increasing trend in the concentrations of certain PFCAs. There is a general lack of toxicity data for most long chain PFCAs, however, emerging data indicates PFCAs >C9 can bioaccumulate, particularly in the case of C11, C12 and C14 (high bioconcentration factors noted in fish). As well, data indicates there can be biomagnification of PFCAs in food chains (e.g. for C9, C10, C11).

ESB would be interested in seeing priority placed on data generation for the longer chain substances i.e. >C8. We would be interested in data generated for both long chain (>C8) carboxylic acids and perfluorinated sulfonates, as well as telomer substances which may degrade to these

>C8 substances (e.g. the 8:2 and 10:2 telomer alcohols nominated and other telomer alcohols which could degrade to the higher chain PFCAs).

There may also be chemical intermediates generated during the degradation of telomer alcohols to PFCAs which may be of more toxicological significance than the PFCAs themselves. For example, toxicity data for telomer aldehydes and telomer □, □ acids are data gaps which may be of significance. Has there been any consideration given to including these substances?

I have noted the NTP welcomes additional information concerning (US) production levels, use or consumption patterns for nominated substances. Please contact me should you be interested in Environment Canada's work related to Canadian use patterns.

ESB is very interested in the NTP work planned on perfluorinated compounds and we appreciate this opportunity to provide you with comments.

Yours sincerely,
Anita Miettunen

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